
U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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IRON ORE IN NOVEMBER 1996

U.S. mine production of iron ore in November was 2.9% higher than that of October, according to the U.S. Geological Survey. Shipments decreased by 8.8% and mine stocks decreased by 3.2%. Consumption and trade data for November will be included in a subsequent report.

Ferteco's Expansion Plans

Ferteco Mineração S.A., Brazil's third largest iron ore producer and exporter, is proceeding with plans for a major increase in production. The German steelmakers Thyssen, Krupp, and Hoersch are the principal shareholders of Ferteco through the managing company Exploration & Bergbau GmbH, Dusseldorf, Germany. Ferteco produces more than 13 million metric tons per year (Mt/yr) of pellets, sinter feed, concentrates, and blast furnace and direct reduction lump ore from its two major mines. Located in the iron quadrangle in the State of Minas Gerais, the Fabrica Mine accounts for 10 Mt/yr, while production at the Córrego do Feijão Mine is 3.4 Mt/yr.

The expansion program consists of three parts, some of which has been accomplished. The first part involved taking a major equity position in the recently privatized central railroad, which connects the mines to the Bay of Sepitiba in the State of Rio de Janeiro. Ferteco made this acquisition in October 1996. Ore from the Feijão Mine is shipped to the Port of Rio de Janeiro.

The next part of the plan involves the Port of Sepitiba. This

port offers two advantages over Rio de Janeiro. The first advantage is shortening the rail distance from mine to port from the existing 820 km (510 miles) to 500 km (311 miles). The second advantage is greater capacity. The iron ore terminal at the Port of Rio de Janeiro cannot accept ships of more than 40,000 tons. Sepitiba is slated for a major expansion, which was expected to begin in early 1997. Upon completion in 1999, the \$88.5 million iron ore terminal is expected to be able to accept 200,000-ton ships and have the capacity to export 6 Mt/yr of iron ore. The Brazilian Government's National Development Bank has signed a \$150 million contract for the expansion. The Rio de Janeiro Port Authority is to spend the funds over an 18-month period on dredging operations to deepen a berth and build a new dock and loading platforms at Sepitiba.

The third part of the plan, to increase production at Feijão Mine, is a primary reason for instituting the first two. The plan calls for an increase in production at the Feijão Mine from its current 3.4 Mt/yr to 6.0 Mt/yr by the end of 1999. The largest increases in production are to be in DR lump and sinter feed.^{1,2,3}

¹Meyers, Pedro P., 1996, Present and Future Availability of DR lump Ores From Ferteco Mineração S.A., in *Iron Ore '96: Supply, Demand, and Quality For Steel and Alternative Iron Unit Production*.

²Skilling Mining Review, Aug. 14, 1993, v. 82, no. 33, pp. 4-9.

³American Metal Market, Oct. 4, 1996, v. 104, no. 193, p. 4.

TABLE 1
U.S. PRODUCTION AND SHIPMENTS OF IRON ORE, BY DISTRICTS 1/
(Exclusive of ore containing 5% or more manganese)

(Thousand metric tons)

Period	Lake Superior		Other U.S.		Total 2/	
	Monthly	Year to date	Monthly	Year to date	Monthly	Year to date
Production:						
1995:						
November	5,089	57,035	57	379	5,146	57,411
December	4,991	62,026	48	427	5,039	62,450
1996:						
January	4,232	4,232	35	35	4,267	4,267
February	4,217	8,449	25	60	4,242	8,509
March	4,801	13,250	23	83	4,824	13,333
April	4,668	17,918	22	105	4,690	18,023
May	5,479	23,397	20	125	5,500	23,522
June	5,128	28,525	22	147	5,150	28,672
July	5,771	34,296	22	169	5,793	34,465
August	5,752	40,048	119	288	5,871	40,336
September	5,590	45,638	25	313	5,615	45,951
October	5,347	50,985	26	339	5,373	51,324
November	5,503	56,488	24	363	5,527	56,851
Shipments:						
1995:						
November	5,632	54,866	44	396	5,676	55,263
December	5,596	60,462	39	435	5,635	60,898
1996:						
January	3,363	3,363	12	12	3,375	3,375
February	1,315	4,678	21	33	1,336	4,711
March	2,357	7,035	25	58	2,382	7,093
April	5,290	12,325	20	78	5,310	12,403
May	6,317	18,328	21	99	6,024	18,427
June	5,925	24,253	17	116	5,942	24,369
July	6,396	30,649	29	145	6,424	30,793
August	6,230	36,879	29	174	6,259	37,052
September	6,341	43,220	29	203	6,370	43,422
October	6,232	49,452	23	226	6,256	49,678
November	5,674	55,126	31	257	5,705	55,383

1/ Excludes byproduct ore.

2/ Data may not add to totals shown because of independent rounding.

TABLE 2
U.S. PRODUCTION, SHIPMENTS AND STOCKS OF IRON ORE IN NOVEMBER 1/
(Exclusive of ore containing 5% or more manganese)

(Thousand metric tons)

District	Production		Shipments 2/		Stocks 3/	
	1996	1995	1996	1995	1996	1995
Lake Superior:						
Michigan	1,562	1,122	1,186	1,489	2,435	2,280
Minnesota	3,941	3,967	4,488	4,143	2,914	2,526 r/
Other U.S.	24	57	31	44	105	94
Total 4/	5,527	5,146	5,705	5,676	5,454	4,901 r/

r/ Revised.

1/ Excludes byproduct ore.

2/ Includes rail and vessel.

3/ Includes mines, plants, and loading docks.

4/ Data may not add to totals shown because of independent rounding.

TABLE 3
CANADA: SHIPMENTS OF IRON ORE

(Thousand dry metric tons)

Period	Newfoundland	Quebec	Ontario	British Columbia	Total 1/
1995:					
November	1,823	1,314	55	7	3,199
December	1,442	1,473	83	6	3,004
Year total	19,969	14,121	1,020	83	35,193
1996:					
January	477	686	42	7	1,212
February	646	927	46	7	1,626
March	444	743	49	7	1,242
April	2,075	741	36	7	2,858
May	1,343	1,927	45	8	3,324
June	1,653	405	43	6	2,107
July	1,308	995	38	7	2,348
August	2,082	867	40	6	2,995
September	2,705	906	58	7	3,676
October	2,350	1,551	114	8	4,023
November	NA	NA	NA	NA	NA

NA Not available.

1/ Data may not add to totals shown because of independent rounding.

Source: Natural Resources Canada.

TABLE 4
CONSUMPTION AND STOCKS OF IRON ORE AND AGGLOMERATES AND
BLAST FURNACE PRODUCTION OF HOT METAL AT U.S. IRON AND STEEL PLANTS

(Thousand metric tons)

Consumption of ores and agglomerates				
Consumption by source	October		Year to date	
	1996	1995	1996	1995
United States ores	4,523	4,672	47,316	48,702
Canadian ores	646	909	6,268	6,781
Foreign ores	661	583	6,283	6,312
Total 1/	5,831	6,164	59,866	61,796
Consumption by process				
Blast furnaces	5,209	5,413	54,219	56,474
Steel furnaces	9	4	70	50
Agglomerating plants 2/	613	731	5,541	5,245
Miscellaneous 3/	--	16	34	26
Total 1/	5,831	6,164	59,866	61,796
Stocks of ores and agglomerates				
Storage point	October 31			
	1996	1995		
Furnace yards	17,241	16,510		
Receiving/transfer docks	1,993	2,457		
Total consumer	19,235	18,967		
Blast furnace production of hot metal				
	October		Year to date	
	1996	1995	1996	1995
Hot metal and pig iron produced in blast furnaces	4,030	4,252	41,351	42,284
No. of blast furnaces operating on the last day of the month	37	41	XX	XX

XX Not applicable.

1/ Data may not add to totals shown because of independent rounding.

2/ Iron ore and iron ore concentrates consumed in agglomerating plants not located at the mine site.

3/ Sold to nonreporting companies or used for purposes not listed.

Sources: American Iron Ore Association (consumption of iron ore) and American Iron and Steel Institute (production of hot metal and pig iron).

TABLE 5
U.S. EXPORTS OF IRON ORE AND AGGLOMERATES, BY COUNTRY
OF DESTINATION AND TYPE

(Thousand metric tons)

Country of destination and type	1996				
	2nd quarter	3rd quarter	August	September	October
Canada	1,288	2,391	633	817	939
Mexico	2	2	(1/)	1	(1/)
Other	5	2	1	(1/)	(1/)
Total 2/	1,295	2,394	634	818	940
Pellets	1,267	2,380	629	811	934
Other	28	14	5	7	5
Total 2/	1,295	2,394	634	818	940

1/ Less than 1/2 unit.

2/ Data may not add to totals shown because of independent rounding.

Source: Bureau of the Census.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE AND AGGLOMERATES,
BY COUNTRY AND TYPE
(Exclusive of ore containing 20% or more manganese)

Country of origin and type of product	October 1996		Year to date 1996			Year to date 1995
	Thousand metric tons	Value 1/ (thousand dollars)	Thousand metric tons	Value 1/ (thousand dollars)	Value 1/ (dollars per ton)	(thousand metric tons)
Australia	65	464	444	3,031	6.83	570
Bahamas, The	--	--	186	4,897	26.33	115
Brazil	659	19,319	4,593	118,099	25.71	4,271
Canada	931	28,688	7,309	244,373	33.43	7,315
Chile	59	1,162	164	2,787	16.99	25
Finland	2	92	9	453	50.33	9
Indonesia	--	--	--	--	--	(2/)
Japan	--	--	(2/)	1	8.75	--
Mauritania	66	1,345	275	5,088	18.50	242
Mexico	1	25	6	111	18.50	--
Norway	--	--	--	--	--	14
Peru	--	--	43	476	11.07	54
Spain	--	--	11	181	16.45	--
Sweden	--	--	48	2,047	42.65	47
Trinidad and Tobago	--	--	--	--	--	5
United Kingdom	--	--	(2/)	8	18.00	2
Uruguay	--	--	24	591	24.63	--
Venezuela	227	8,054	1,743	63,553	36.46	1,931
Total 3/	2,011	59,148	14,856	445,696	30.00 4/	14,601
Concentrates	245	4,370	1,200	21,413	17.84	1,298
Coarse ores	255	9,306	1,017	37,601	36.97	1,547
Fine ores	306	4,982	3,107	51,573	16.60	3,196
Pellets	1,058	36,573	9,006	320,226	35.56	7,616
Briquettes	--	--	--	--	--	54
Other agglomerates	145	3,827	517	14,393	27.84	880
Roasted pyrites	2	92	10	490	49.00	9
Total 3/	2,011	59,148	14,856	445,696	30.00 4/	14,601

1/ Customs value. Excludes international freight, insurance, and other c.i.f. charges.

2/ Less than 1/2 unit.

3/ Data may not add to totals shown because of independent rounding.

4/ Weighted average calculated from unrounded data by dividing total value by total tonnage.

Source: Bureau of the Census.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE AND AGGLOMERATES IN OCTOBER 1996
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Country of origin	Type of product						Total 1/
	Concentrates	Coarse ores	Fine ores	Pellets	Briquettes and other agglomerates	Roasted pyrites	
Australia	--	--	65	--	--	--	65
Brazil	146	83	153	277	--	--	659
Canada	61	--	--	727	144	--	931
Chile	38	--	21	--	--	--	59
Finland	--	--	--	--	--	2	2
Mauritania	--	--	66	--	--	--	66
Mexico	--	(2	--	--	1	--	1
Venezuela	--	173	--	55	--	--	227
Total 1/	245	255	306	1,058	145	2	2,011

1/ Data may not add to totals shown because of independent rounding.

2/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF PELLETS, BY COUNTRY

Country of origin	October 1996		Year to date 1996			Year to date 1995
	Thousand metric tons	Value 1/ (thousand dollars)	Thousand metric tons	Value 1/ (thousand dollars)	Value 1/ (dollars per ton)	
Bahamas, The	--	--	--	--	--	59
Brazil	277	10,987	1,534	58,163	37.92	1,020
Canada	727	23,673	6,572	227,624	34.64	5,796
Peru	--	--	--	--	--	36
Venezuela	55	1,913	899	34,440	38.31	705
Total 2/	1,058	36,573	9,006	320,226	35.56 3/	7,616

1/ Customs value. Excludes international freight, insurance, and other c.i.f. charges.

2/ Data may not add to totals shown because of independent rounding.

3/ Weighted average calculated from unrounded data by dividing total value by total tonnage.

Source: Bureau of the Census.

TABLE 9
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE AND
AGGLOMERATES, BY CUSTOMS DISTRICT
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Customs district	October	Year to date	
	1996	1996	1995
Baltimore, MD (13)	358	3,472	3,678
Buffalo, NY (09)	--	(1/)	--
Charleston, SC (16)	75	504	553
Chicago, IL (39)	453	2,374	2,275
Cleveland, OH (41)	125	668	1,272
Detroit, MI (38)	105	1,570	342
Duluth, MN (36)	--	51	--
El Paso, TX (24)	(1/)	(1/)	--
Honolulu, HI (32)	--	(1/)	--
Houston - Galveston, TX (53)	2	51	43
Los Angeles, CA (27)	--	(1/)	(1/)
Mobile, AL (19)	465	2,995	2,999
New Orleans, LA (20)	129	1,225	1,304
Nogales, AZ (26)	1	6	--
Norfolk, VA (14)	5	5	--
Ogdensburg, NY (07)	(1/)	(1/)	(1/)
Philadelphia, PA (11)	293	1,915	2,122
Portland, ME (01)	--	(1/)	--
San Diego, CA (25)	--	9	9
San Juan, PR (49)	--	11	5
Total 2/	2,011	14,856	14,601

1/ Less than 1/2 unit.

2/ Data may not add to totals shown because of independent rounding.

Source: Bureau of the Census.

TABLE 10
U.S. IMPORTS FOR CONSUMPTION OF PELLETS, BY CUSTOMS DISTRICT

(Thousand metric tons)

Customs district	October	Year to date	
	1996	1996	1995
Baltimore, MD (13)	--	1,392	1,170
Charleston, SC (16)	50	266	349
Chicago, IL (39)	277	1,344	1,068
Cleveland, OH (41)	98	589	1,188
Detroit, MI (38)	105	1,547	333
Duluth, MN (36)	--	51	--
Houston - Galveston, TX (53)	--	41	43
Mobile, AL (19)	465	2,439	1,765
New Orleans, LA (20)	--	287	39
Philadelphia, PA (11)	63	1,050	1,660
Total 1/	1,058	9,006	7,616

1/ Data may not add to totals shown because of independent rounding.

Source: Bureau of the Census.